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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,478	07/26/1999	J. WALLACE PARCE	CALPP001X1	5568

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EXAMINER

TSAI, CAROL S W

ART UNIT PAPER NUMBER

2857

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/361,478

Applicant(s)

PARCE ET AL.

Examiner

Carol S Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 16-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election without traverse of Group I that includes claims 1-15 in Paper No. 11 is acknowledged.
2. Claims 16-29 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 11.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 6,416,642 to Alajoki et al.

With respect to claims 1 and 12, Alajoki et al. disclose a computer implemented method of controlling an analytical instrument that analyzes microfluidic devices (see col. 25, lines 7-

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28), comprising: receiving a sequence of steps, each step specifying at least one well of a microfluidic device and a value indicative of mobility to be applied to fluid in at least one well (see col. 2, lines 21-44; col. 3, lines 22-32; col. 27, lines 28-67); for each step, applying the mobility specified by the value to the fluid in the at least one well (see col. 2, lines 45-57; col. 6, lines 24-33; col. 9, lines 11-35; col. 10, line 21 to col. 11, line 15); and scanning fluid as it passes a detection zone in the microfluidic device (see col. 14, lines 4-59 and col. 27, lines 16-27).

As to claim 14, Alajoki et al. also disclose a system, comprising: an instrument that controls and analyzes a microfluidic device; a computer including a processor, the computer being capable of directing the instrument to apply mobility to fluid in wells of the microfluidic device; and code stored on the computer readable medium that includes a sequence of steps, each step specifying at least one well of a microfluidic device and a value indicative of mobility to be applied to fluid in the at least one well (see col. 25, line 7 to col. 26, line 53).

Alajoki et al. do not disclose expressly the computer readable medium.

It is, however, considered inherent that Alajoki et al. adds the computer readable medium (see col. 25, lines 18-28), because a computer readable medium, such as a memory, is one of five functionally independent main parts, input, memory, arithmetic and logic, output, and control units, that existing in the computer in order to store program and data.

As to claim 2, Alajoki et al. also disclose specifying a duration for applying the mobility specified by the value to the fluid in the at least one well (see col. 9, lines 36-51; col. 15, line 54 to col. 16, line 11; and col. 32, lines 27-29).

As to claim 3, Alajoki et al. also disclose a current to be applied to the fluid in the at least one well (see col. 12, lines 7-21).

As to claim 4, Alajoki et al. also disclose a voltage to be applied to the fluid in the at least one well (see col. 11, lines 40-55).

As to claims 5 and 6, Alajoki et al. also disclose a vacuum/pressure to be applied to the fluid in the at least one well (see col. 9, lines 23-35).

As to claims 7-9, Alajoki et al. also disclose loading a sample to a main channel in the microfluidic device and running the sample through the main channel past the detection zone (see col. 9, lines 11-35; col. 12, lines 7-21; and col. 29, line 63 to col. 30, line 52).

As to claim 10, Alajoki et al. also disclose at least two intersecting microscale channels (see col. 21, line 65 to col. 22, line 6).

As to claims 11, 13, and 15, Alajoki et al. also disclose the sequence of steps stored on a computer readable medium (see col. 25, lines 18-28).

Alajoki et al. do not disclose expressly the computer readable medium being a memory.

It is, however, considered inherent that Alajoki et al. adds the computer readable medium being a memory (see col. 25, lines 18-28), because the memory is one of five functionally independent main parts, input, memory, arithmetic and logic, output, and control units, existing in the computer in order to store program and data.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kopf-Sill et al. disclose electrokinetic devices having a computer for correcting for electrokinetic effects.

Parce discloses a method for displaying chromatographic data using a graphical user interface.

Quake et al. disclose methods for high speed, high throughput analysis of polynucleotide sequences, and apparatuses with which to carry out the methods.

McBride discloses a microfluidic fluid delivery system including a microfluidic chip having a fluid input.

Parce discloses a method for displaying chromatographic data using a graphical user interface.

Jensen discloses a method and apparatus for measuring very low light signals including integrating a signal from a photo diode, avalanche photo diode, photomultiplier tube or the like, digitally sampling the integrator output more than two times during each integration period, fitting a curve to the multiple digitized readings to calculate the integration slope for each integration period and determining the original signal from the calculated integration slope.

Mastrangelo et al. disclose polymer-based micro-electro-mechanical system (MEMS) technology suitable for the fabrication of integrated microfluidic systems, particularly medical and chemical diagnostics system, ink-jet printer head, as well as any devices that requires liquid- or gas-filled cavities for operation.

Bjornson et al. disclose an apparatus for conducting a microfluidic process.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (703) 305-0851. The

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examiner can normally be reached on Monday-Friday from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703) 308-1677. The fax number for TC 2800 is (703) 308-7382. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (703) 308-1782.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 308-7382. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. Tsai

12/16/02


MARC S. HOFF
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